

We claim:

1. An enhanced Distance Vector Multicast Routing Protocol (DVMRP) method for regulating one or more multicast streams in a first destination-based forwarding router, comprising the steps of:
 - (a) transmitting a DVMRP route report to a first branch interface detected; and
 - (b) for each new branch interface detected:
 - (i) transmitting, to each branch interface previously detected, a flash update for preventing one or more neighbor multicast routers from expressing dependency on the first destination-based forwarding router; and
 - (ii) transmitting, to the new branch interface, a restricted route report for preventing one or more neighbor multicast routers from expressing dependency on the first destination-based forwarding router.
2. The enhanced DVMRP method in claim 1, wherein the DVMRP route report comprises routes accessible through one or more interfaces of the first destination-based forwarding router enabled with the enhanced DVMRP method.
3. The enhanced DVMRP method in claim 1, wherein the restricted route report omits reference to routes accessible through each branch interface previously detected.
4. The enhanced DVMRP method in claim 3, wherein the restricted route report consists of routes accessible through the one or more leaf interfaces of the first destination-based forwarding router.
5. The enhanced DVMRP method in claim 1, wherein the flash update comprises an unreachable metric for the new branch interface.
6. The enhanced DVMRP method in claim 5, wherein the unreachable metric is a cost metric having a value of 32.

7. An enhanced DVMRP method for regulating multicast streams in a destination-based forwarding router, comprising the steps of:
- (a) detecting a plurality of branch interfaces, wherein each branch interface is operably coupled to one or more neighbor multicast routers; and
 - 5 (b) transmitting one or more restricted route reports to at least one of the plurality of branch interfaces, wherein at least one of the one or more restricted route reports omits one or more branch interfaces; and
- wherein at least one of the one or more neighbor multicast routers are prevented from expressing dependency on branch interfaces of the destination-based forwarding
- 10 router.
8. The enhanced DVMRP method in claim 7, wherein the method further includes the step of transmitting, to at least one of the plurality of branch interfaces, a flash update for preventing at least one of the one or more neighbor multicast routers from
- 15 expressing dependency on branch interfaces of the destination-based forwarding router.
9. An enhanced DVMRP router for regulating one or more multicast streams in a first destination-based forwarding router, enhanced DVMRP router for:
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- (a) transmitting, to a first branch interface detected, a DVMRP route report comprising routes accessible through one or more enhanced-DVMRP interfaces of the first destination-based forwarding router; and
 - (b) for each new branch interface detected:
- 25 (i) transmitting, to each branch interface previously detected, a flash update comprising an unreachable metric for the new branch interface; and
 - (ii) transmitting, to the new branch interface, a restricted route report omitting reference to routes accessible through each branch interface previously detected.
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10. The enhanced DVMRP method in claim 9, wherein the flash update comprises an unreachable metric for the new branch interface.

11. A computer-readable medium containing instructions for regulating one or more multicast streams in a first destination-based forwarding router, the instructions comprising the steps of:

- (a) transmitting a DVMRP route report to a first branch interface detected; and
- (b) for each new branch interface detected:
 - (i) transmitting, to each branch interface previously detected, a flash update for preventing one or more neighbor multicast routers from expressing dependency on the first destination-based forwarding router; and
 - (ii) transmitting, to the new branch interface, a restricted route report for preventing one or more neighbor multicast routers from expressing dependency on the first destination-based forwarding router.

12. The instructions in claim 11, wherein the DVMRP route report comprises routes accessible through one or more interfaces of the first destination-based forwarding router enabled with the enhanced DVMRP method.

13. The instructions in claim 11, wherein the restricted route report omits reference to routes accessible through each branch interface previously detected.

14. The instructions in claim 13, wherein the restricted route report consists of routes accessible through the one or more leaf interfaces of the first destination-based forwarding router.

15. The instructions in claim 11, wherein the flash update comprises an unreachable metric for the new branch interface.